

Remarks

Claims 1 to 3 and 8 are amended. Claims 1 to 13 are pending in this application of which only claim 1 is in independent form.

Claims 1 to 13 were rejected under 35 USC 112, second paragraph, as being indefinite because the term "housing part" had insufficient antecedent basis.

Claim 1 is amended to delete the term "housing part" and to substitute -- apparatus part -- therefor. Accordingly, claim 1 should now be definite as required by the statute.

Claim 3 was also indefinite for the reason set forth in the last paragraph of page 2 of the action. This claim is amended herein to define the collar as having a slot extending peripherally about the attachment pin and should now be definite.

Claim 1 was rejected under 35 USC 102(b) as being anticipated by Kim et al. Claim 1 has been extensively amended and applicant will show that claim 1 patentably distinguishes the applicant's invention over this reference.

Before discussing Kim et al, applicant believes it will be helpful to first briefly discuss the amendments made to claim 1 and to provide background as to how the applicant's invention was arrived at.

Claim 1 is amended to define the muffler as being an exhaust-gas muffler which directs the exhaust gases of the engine away and attenuates noise. The antecedent basis for this first supplement of claim 1 can be found in the applicant's disclosure on page 7, lines 13 to 15. In a further amendment of claim 1,

the attachment pin is defined with greater detail in that it now contains a threaded section which threadably engages in the apparatus part. The antecedent basis for this feature and limitation can be found on page 7, lines 25 to 29, of the applicant's disclosure.

Also, claim 1 is further supplemented to recite that the cooling surface is provided for conducting away at least a portion of the heat which is introduced into the attachment pin by the exhaust-gas muffler. The heat dissipation takes place via radiation and/or via convection. This additional feature and limitation has its antecedent basis on page 3, lines 15 to 17, of the applicant's disclosure.

Applicant notes that his invention proceeds from a state of the art wherein the exhaust-gas muffler of a portable handheld work apparatus is held to an apparatus part with threaded fasteners. During operation, the exhaust gas of the engine is directed through the attachment pins to the apparatus part. The attachment pins form a heat bridge to the cooler apparatus part.

This subject matter is carefully discussed in the introductory passages of the applicant's disclosure, namely, that the heat from the exhaust-gas muffler can be directed to the attachment pin in the cooler apparatus part so that the threaded connection between the attachment pin and the apparatus part can become loose.

With the applicant's claim 1 amended herein to recite that the muffler is an exhaust-gas muffler, the applicant emphasizes that the heat thereof is introduced into the apparatus part via the attachment pin. Furthermore, claim 1 is furthermore made

more precise in that the attachment pin is threadably engaged with the apparatus part. This feature is nowhere disclosed in the art of record.

According to a feature of the applicant's invention, an attachment pin is provided for the exhaust-gas muffler and this attachment pin is threadably engaged with the apparatus part. The attachment pin has an at least partially exposed region having a cooling surface between the exhaust-gas muffler and the apparatus part. This at least partially exposed cooling surface directs heat away via radiation and/or convection.

The above has the consequence that the heat flow from the exhaust-gas muffler through and out the attachment pin is reduced. The heat entry into the threaded connection of the attachment pin is reduced. Accordingly, the threaded connection is less loaded and no longer becomes loose. The threaded connection can be smaller and configured to take less space.

Turning now to Kim et al, this reference shows a suction noise muffler for a compressor. In the embodiment of FIGS. 3b and 3c, a head 210 of the suction noise muffler is attached to a fixing member 240. The fixing member 240 engages with its connecting portion 241 in a groove section 228 of a fixing bolt 223.

The disclosure content of Kim et al provides no hint to a person of ordinary skill as to how the applicant's invention could be arrived at. Thus:

- (a) Kim et al shows no exhaust-gas muffler of an internal combustion engine. The suction noise muffler of Kim et al is not subjected to any heat load as in the

applicant's invention.

- (b) The part 210 of the suction noise muffler shown in FIG. 3 lies directly against the apparatus. Accordingly, the fixing bolt 223 is not arranged between the muffler and the apparatus part.
- (c) A transfer of this arrangement to an exhaust-gas muffler attachment does not lead to the applicant's invention. The muffler part 210 of Kim et al lies directly on the apparatus part and forms a heat bridge to the apparatus part. The fixing bolt 223 is therefore not subjected to any heat load.
- (d) The entire disclosure of Kim et al is not directed to the problems caused by a thermal load of attachment pins.

For the reasons advanced above, applicant submits that claim 1, as amended, patentably distinguishes the applicant's invention over this reference.

Claim 1 was also rejected under 35 USC 102(b) as being anticipated by Niwa et al. The applicant will now show that his invention also patentably distinguishes over this reference.

In the embodiment of FIG. 3 of this reference, the threaded fastening of hot, exhaust-gas conducting part 28 is shown with a heat insulating plate 25. The threaded fastening takes place via a fastening bolt 27 which is surrounded by elements. Applicant respectfully disagrees with the view expressed in the action that the threaded shaft of the fastening bolt 27 can function as a cooling surface. The threaded shaft of the fastening bolt 25 can not, however, function as a cooling surface because the threaded

shaft is enclosed on all sides.

The fastening bolt 27 of Niwa et al accordingly does not exhibit at least a partially exposed cooling surface. The arrangement is not suitable for the conducting away of heat at such an exposed cooling surface via radiation and/or convection as in the applicant's invention as set forth in claim 1 with the clause:

"said region defining a cooling surface for conducting away at least a part of the heat which is introduced from the exhaust-gas muffler into the attachment pin via radiation and/or convection."

Niwa et al gives no suggestion which could lead our person of ordinary skill to the above feature and limitation.

Claim 1 was rejected under 35 USC 103(a) as being unpatentable over Rives in view of Niwa et al. Applicant's claim 1 also patentably distinguishes his invention over this combination of references.

In Rives, an attachment pin for a lighting unit for motor vehicles is shown. In FIG. 1, the attachment pin includes a peripherally-extending collar (13, 13a) which, in the assembled state (FIG. 2), lies in a distance region between two components.

Rives shows no exhaust-gas muffler and provides no hint as to the problem associated with heat transfer. The attachment of the illuminating unit does not implicitly suggest a heat load in the area of the threaded fasteners. The person of ordinary skill would not be able to find any connection between the attachment of the illuminating unit and a thermally-loaded threaded fastener of an exhaust-gas muffler. Rives does not assist our person of ordinary skill in arriving at the applicant's invention.

The same applies to the attachment lug of Brown. The two coupling parts are threadably connected to each other via, for example, the lug shown in FIG. 3. A free space remains between the two coupling parts. Indications of an introduction of heat into the threaded fastener are nowhere suggested and are not evident even implicitly from the coupling arrangement shown.

For the reasons advanced above, the applicant respectfully submits that claim 1 patentably distinguishes his invention over the applied references and should now be allowable. The remaining claims 2 to 13 are all dependent from claim 1 so that they too should now be allowable.

Reconsideration of the application is earnestly solicited.

Respectfully submitted,



Walter Ottesen  
Reg. No. 25,544

Walter Ottesen  
Patent Attorney  
P.O. Box 4026  
Gaithersburg, Maryland 20885-4026

Phone: (301) 869-8950

Date: July 18, 2006